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From Migration to Urban Sprawl in Flanders (Belgium)

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1 ABSTRACT

Belgium, and especially Flanders, is recently developping new policy plans for the future spatial development. Within this context a discussion is going on about the strategies to deal with the ungoing urban sprawl.

In this paper we will first focus on migration figures, and draw up a map with current migration patterns in Belgium. This map faces the residential pressure level of the municipalities and the regional housing market areas. This housing pressure is the result of depositing the growth in households relative to the available building possibilities.

Secondly we will analyse the forecasted population growth in Flanders. Immigration to Belgium comes mainly from the rest of Europe, primarily from the group of 20-50 year olds. From 2040 on growth will only be due to external immigration. This external immigration arrives on the one hand basically in the larger cities. The internal migration, on the other hand, shows a pattern away from these larger cities. Especially the cities outlying edges and the rural areas have a growth at the expense of city centers. Accordingly the current population is changing. Within Belgium and Flanders, as in most other Western European countries, we are confronted with the ageing of the population and with a limited growth of the number of households mainly because of smaller households.

Finally we confront the migration patterns, the population forecasts and the disponsibility of building plots. The large surplus of building opportunities, especially in rural areas, drives along the suburbanization. This urban sprawl in turn leads to the known dispersed settlement pattern in Flanders, the northern part of Belgium.

In this context and in relation to European trends, we examine how the government can steer upon spatial planning and in particular on the available building possibilities.

Keywords: housing pressure, urban sprawl, migration patterns, Flanders, spatial planning

2 INTRODUCTION

2.1 Urban sprawl in Belgium

Belgium, and especially Flanders, is recently developping new policy plans for the future spatial development. Within this context a discussion is going on about the strategies to deal with the ungoing urban sprawl (Ruimte Vlaanderen, 2017). It can be assumed that sprawl is perceived, and dealt with, in different ways according to the spatial planning culture and to the institutional and political context of the country involved (Territorial Cohesion and Urban Matters Workgroup, 2010). Planning systems, legislative stipulations, subsidies and taxes play a role in driving or moderating urban sprawl (European Environment Agency and Federal Office for the Environment, 2016). However, the spatial zoning plans and rules allow and even shape sprawl, they don't require it. Thompson (2013) stresses the demand for sprawl by people and firms who keep choosing the suburbs mainly for financial reasons (more than for personal preference). Property prices and personal preferences are key drivers of sprawl.

Within the European Union there is an ungoing debate about urban sprawl. Several documents present urban sprawl as an important challenge (European Commission, 1990; CEMAT, 2003; European Commission - Inter-services Group on Urban Development, 2007; European Parliament - Committee on Regional Development, 2007; Ministers in charge of spatial development in the EU, 2007). Urban sprawl is not a new problem. In 2006 already, the European Environment Agency (EEA) reported on the scattered expansion of urban areas into the part of Europe's countryside (European Environment Agency, 2006). More recently the degree of urban sprawl in 32 countries in Europe is investigated (European Environment Agency and Federal Office for the Environment, 2016). The level of sprawl increased in all European countries between 2006 and 2009. The increasing urban sprawl in Europe is causing land use conflicts and is posing a major threat to sustainable land use. The two largest clusters of high-sprawl values in Europe are located in north-eastern

France, Belgium, the Netherlands and part of Western Germany; and in the United Kingdom between London and the Midlands (Fig.1).The urban sprawl leads to the known dispersed settlement pattern in Flanders, the northern part of Belgium(De Decker, 2011; Verbeeck, Boussauw, & Pisman, 2014).

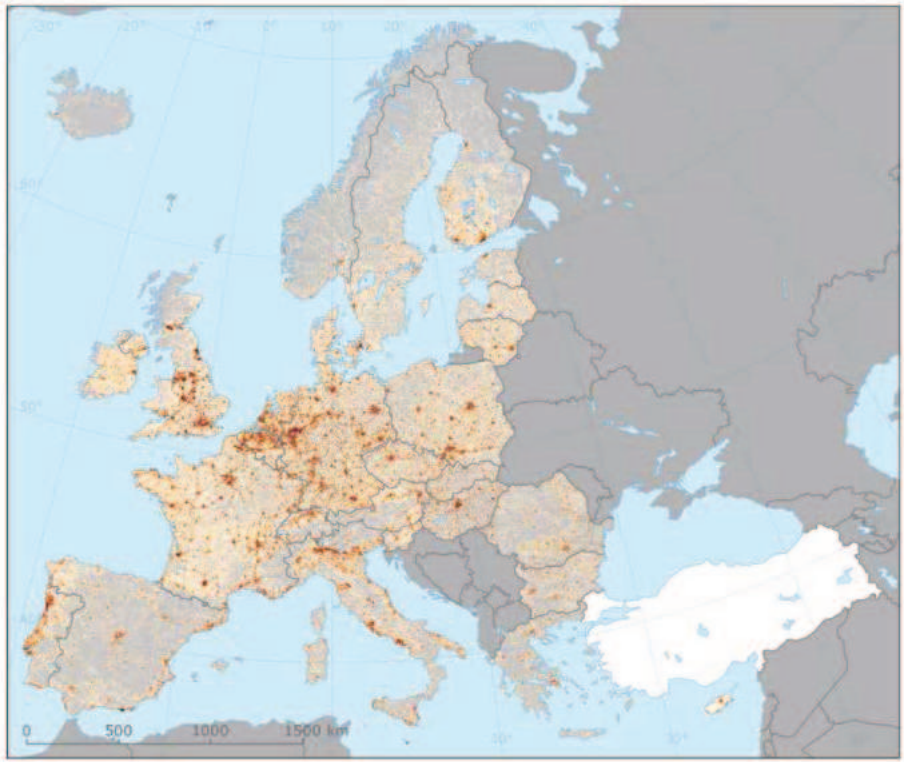

Fig. 1: Sprawl in Belgium in European context (2009). Source: EEA (2016).

2.2 Data and methodology

In the scientific and policy literature concerning the issue of sprawl, the residential function generally takes the largest place (Territorial Cohesion and Urban Matters Workgroup, 2010). Therefore, in this paper we focus on the household evolutions and migrations of people and households.

Different types of data are used to sketch the process from migration to sprawl in Belgium and Flanders. First, data on external migration is used to position the net migration flows to and from Belgiums main regions (Flanders, Brussels Capital Region, and Wallonia). Second, internal migration patterns are mapped schematic, based upon internal migration figures from 2015, the latest available data. Both maps help to outline the migration analysis in Belgium. The next section describes the population forecasts for Flanders, the northern region of Belgium. Data reveal expected demographic growth and shrinkage on the local scale (municipalities). These forecast are made by the Flemish Government in 2015. In section 5, we confront the demographic forecasts with the available building possibilities at the local level. The available building opportunities drive urban sprawl in Flanders. The same confrontation on the upper scale of housing market areas reveals that local shortages of building opportunities are limited to a few housing market areas.

The analysis of the different maps lead finally to conclusions about a business as usual scenario or a scenario that steers upon the available building plots and counters ongoing sprawl in Flanders.

3 MIGRATION ANALYSIS FOR BELGIUM

3.1 External migration

Despite the major migration flows worldwide from east to west and from south to north, the situationin Belgium is somewhat different, since almost 70% of the migration comes from within Europe. The major flows are between Western European countries (Netherlands, France). Net seen, the influx from Eastern Europe is most significant. These figures take no account of the accelerated migration from Syria in 2014-2017. But despite the visibility of it, this share is relatively limited in the migration to our country. 10% of the population in Belgium is migrant. The largest influx of migrants goes to the Brussels Capital Region, followed by Flanders and Wallonia (Fig. 2). There is also a flow between these regions, whereby the

suburbanization from the Brussels Capital Region towards Flanders and in minor order towards Wallonia is significant.

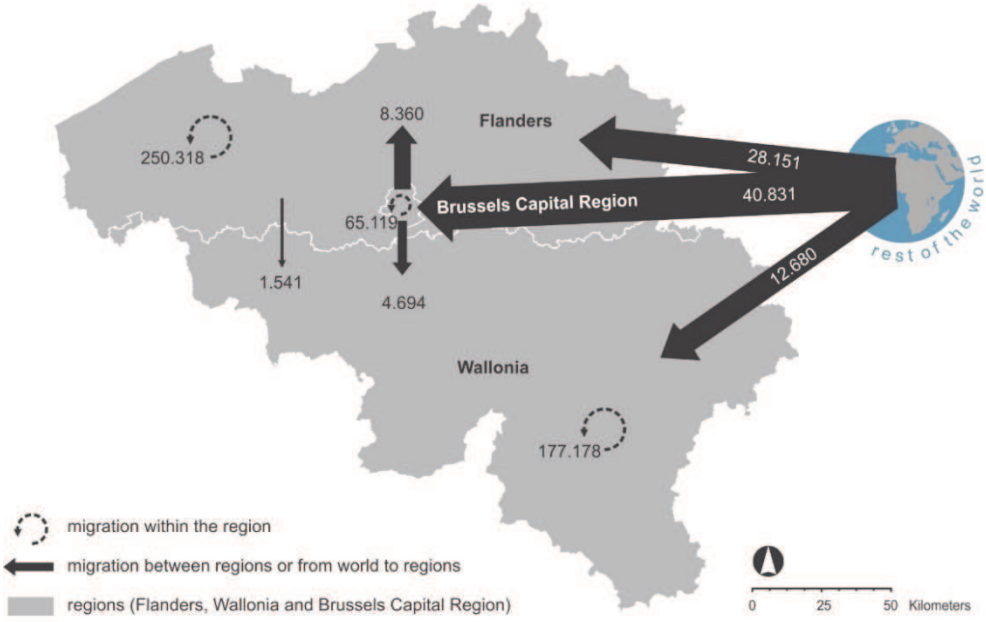

Fig. 2: Net migration flows to and from Belgiums main regions (Flanders, Brussels Capital Region, and Wallonia), average number per year over the period 2010-2013. Source: Processed data from the Flemish Government – Research Centre Flanders (2014).

3.2 Internal migration patterns

The strongest flows of migration, however, are within the regions. The internal migration is four times as strong as the external immigration (Fig. 2). The internal migration flows are steered from suburbanization processes. Fig. 3 illustrates the flows to and from the major cities and regional towns.

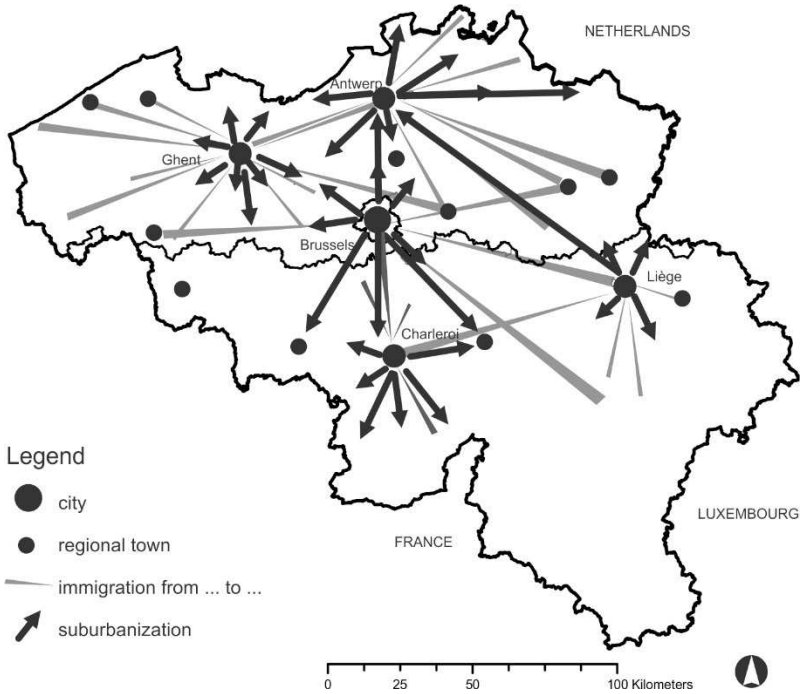

Fig. 3: Migration patterns in Belgium based on internal migration figures from 2015. Source: Processed data from the Flemish Government – Research Centre Flanders (2017).

ISBN 978-3-9504173-2-6 (CD), 978-3-9504173-3-3 (print)
Editors: Manfred SCHRENK, Vasily V. POPOVICH, Peter ZEILE, Pietro ELISEI, Clemens BEYER

4 POPULATION FORECASTS FOR FLANDERS

4.1 Population and household growth

Population growth in Flanders, predicted by the Federal Planning Bureau (FPB, 2015), is approximately 370,000 additional inhabitants in the period 2015-2030. By 2050 it is about almost 744,000 inhabitants. Figure 4 gives the population forecast for Flanders in the period 2015-2030, per municipality. Although Flanders is characterized by continuous growth, on the local level there will be some municipalities which will shrink.

Household growth in Flanders predicted by the Federal Planning Bureau (FPB, 2015) is approximately 230,000 additional households in the period 2015-2030. In Flanders, the number of households increase each year with some 20,000 which are almost entirely attributable to single-person households and single-parent families (Statistics Belgium, 2016a). By 2050, Flanders will count about 418,000 households.The proportion of singles will rise spectacularly from one-third in 2015 to 40% in 2050. The proportion of couples with children decreases (from 29% to 22%). These smaller families conceal several trends. The classic family with children is increasingly a smaller share of households. Aging causes an increase in the number of elderly.

This outlook would lead to increased housing demand and necessitate an ambitious building program (Vlaamse Regering (2014), Vlaamse Overheid (2012), Vlaamse Confederatie Bouw (2015), Ryckewaert (2014)).

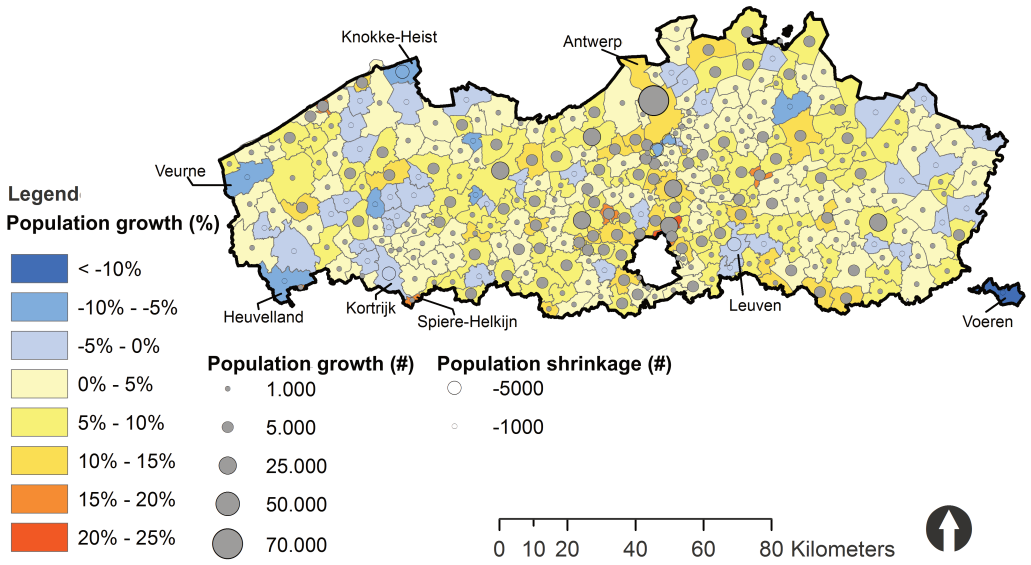

Fig. 4: Population forecasts in Flanders (Belgium) for the period 2015-20130. Source: Processed data from the Flemish Government – Research Centre Flanders (2015).

4.2 Ageing and rejuvenation

The aging population will increase rapidly by 2050, with an increase of 60% in the age group 67 years and older. At the same time there occurs a 'greening' (rejuvenation), albeit much less pronounced. However, this group of young people percentage-wise remains stable. In percentage terms, the active group will fall sharply (from 64% in 2015 to 56% in 2050). This decrease coincides with the increase in the proportion of older people (from 17% to 24% in 2050). That is double compared to 1991. Within the elderly population there occurs another ageing: the 80+ persons rose from 3% in 1991 and 6% in 2015 and will further increase to 11% in 2050.[1] Especially on the coast, the proportion and numbers increase significantly, partly due to internal immigration (Vandekerckhove, De Luyck, Volckaert, De Witte, & De Decker, 2014). That rapidly growing group will also make different demands to the houses and the environment depending on their housing preferences (aging-in-place versus moving-in-time). Given the Flemings are sedentary, homes are

[1] Calculation based upon population forecasts of the Federal Planning Bureau. Database accessed on 5/1/2016. http://www.plan.be/databases/database_det.php?lang=nl&TM=46&ID=35

aging along with their inhabitants. It also shows that most of those homes are not adapted to physical limitations (Myncke & Vandekerckove, 2007; De Witte et al., 2012).

5 HOUSING MARKET AREAS AND HOUSING PRESSURE

5.1 The role of housing market areas

The concept of housing market areas was widely introduced for the first time in Flanders by Van Nuffel (2005), based on earlier work by Thissen (1995). It defines a 'regional housing market', or even the 'regionalization of the housing market' as "a concept that shows the intertwining of urban and rural areas in the network society and draws attention to the structure behind the distribution pattern of land prices. (...) A regional housing market consists of the area around an employment center and is considered as a residence by families whose members work in the employment center (Van Nuffel & Saey, 2006). Not so much the price level, but the price gradient around larger cities is important. Its definition was based on land prices, commuting and migration. Housing markets may partly overlap. More recent updates within the Flemish context we find in van Meeteren et al. (2015), and under more limited form in Soresma (2009); Arts et al. (2011); Arts, Boussauw, and Loris (2014) and SUMResearch, Sint-Lucas Architectuur Brussel-Gent, and KULeuven (2012), which are limited to processing commuting and/or migration data. In a sense, connect the latter to the approach of the 'migration basins' of Willaert (1999) and Willaert, Surkyn, and Lesthaeghe (2002).

The use of migration is one of the favored practical approaches. Flows of migrants are indeed the outcome of a search process within a defined market area. One of the main concepts thereby is that of 'spatial containment'. As household migration is not a part of a daily urban system like commuting, the measure of containment can be lower than by travel-to-work areas (Jones, 2002). Nevertheless, a high degree of closure is needed in the sense that low proportions of movers into and out of the area are observed. Besides the fact that in-migration from a surrounding area should be of minor significance, a housing market area should be at least a settlement or groups of settlements according to Jones (2002). He defines a housing market area as "a contiguous area comprising a settlement or group of settlements with a high degree of housing market self-containment, and where in-migration from outside the immediate housing market are is of only minor significance" (Jones, 2002: 557).

Housing market areas reflect, according to Hincks and Baker (2012), the outcome of internal spatial arbitrage, market search, the relationship between home and work and the issue of scale and submarkets reflect the outcome of constraints placed on the arbitrage process. Sub-markets are considered to exist because of market imperfections such as transactions costs and inelastic supply e.g. caused by planning constraints or construction lags (Jones, 2002; Jones, Leishman, & Watkins, 2003; Brown & Hincks, 2008). This leads to different prices of a standardized house in each sub-market. These price differentials could lead to temporary sub-markets. The existence of 'the' housing market is also contested by Vastmans, Helgers, Damen, Goeyvaerts, and Buyst (2016), who speak rather of a patchwork of regional housing markets (p. 98). For example, sharply increasing the price in a particular region can cause households to move to neighboring regions in which prices may increase. In any case, prices in a given region may temporarily deviate from neighboring regions, but in the longer term they will always return to an equilibrium (Vastmans et al., 2016).

Another important social factor is demographics. The term demographic refers to all non-price and non-income terms (e.g. household size, marital status, population size, fertility, …). Demographic developments (family formation and growth) largely determine the need for housing. Headship influences the housing market through the demand for separate units. It also has spatial consequences if new dwellings must be built to accommodate the increase in number of households, e.g. by migration to the suburbs (Muth & Goodman, 1989).

The issue of size brings us to the existence of sub-markets. The existence of sub-regional housing market areas has been debated vividly in literature (Watkins, 2001; Bourassa, Hoesli, & Peng, 2002; Jones et al., 2003; Brown & Hincks, 2008; Islam & Asami, 2009; Wu & Sharma, 2012). UK-literature stresses the importance of policies managed and implemented at the sub-regional level, either than at regional or local levels (Roberts & Baker, 2004). This in contrary to the tradition in the UK of local authorities coordinating local housing provision and establishing the amount of land required to accommodate new housing (Brown

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Editors: Manfred SCHRENK, Vasily V. POPOVICH, Peter ZEILE, Pietro ELISEI, Clemens BEYER

& Hincks, 2008). In Belgium, Flanders, this is also the case with this difference that the local plans must abide by sub-regional structure plans of provinces and by the regional Spatial Structure Plan of Flanders.

Defining and delineation of regional housing (sub-)markets are important issues addressed in literature. An agreed definition is still the most arduous part. Islam and Asami (2009) give an overview of the main streams in defining and delineating housing submarkets, making a difference between major perspectives such as topographic or geographic boundary, quality of the houses, hedonic and equilibrium models.

Altough there is no conscensus in literature about the delineation of housing market areas, we use the concept of housing market areas, as defined by Arts, Boussauw and Loris (2014), to analyze demand and supply on a more regional level.

5.2 Supply versus demand: housing pressure

Demographic trends lead to changes in demand in housing. The household evolution, both in size and age, provides an increase in the proportion of apartments in the permits and a decline in the proportion of permits for new construction in detached dwellings. Also migration flows play an important role in the demand for housing. The number of refugees currently residing in shelters will have to be housed eventually in a more sustainable manner. This is likely to put pressure on the underside of the housing market (cheap rent) (Vastmans et al., 2016).

It is important to attune supply with this demand. The question arises whether the housing market will provide this supply, or whether steering (from a planners perspective) is necessary. Planning, as well as the building process are slow processes. Anticipating these future developments is important.

Attuning demand and supply is not easy, as demography, lifestyles and working careers change rapidly. The problem with tuning demand and supply is the relative immutability of the built environment opposite to a high degree of variability of society (Musterd, 1996). Per phase of life differs the need for housing. A single young person will have different housing needs than an older single. Moreover, young people move more often because they experience many changes in working conditions and household conditions. Population and economic growth require land. Taking Flanders alone, 6ha per day are needed for urban use (Loris I. & Van Daele W., 2012). Thus, policy-makers are asking questions such as: Will there be enough land to support urban development? Are there alternatives that require less land?

Hereby development sites play an important role. Because the supply of building land, by definition, is limited, it responds only to a limited extent to an increase in the demand. The value of land is determined residual. The price of land has increased significantly in recent years (Statistics Belgium, 2016b). Many will insist to extend the supply to reduce the price. But calculations have shown that there is still ample supply to accommodate the needs of the coming years (Loris I., 2009, 2011). It is not easy to determine whether all of these places are also the places where the need is urgent. To the extent that prices reflect the residential preferences, the demand for living areas is greatest in urban and peri-urban areas. Nonetheless, the work hypothesis is that demand can be absorbed within the existing building stock and supply of land despite regional differences in demand and supply.

Figure 5 illustrates the housing pressure in Flanders per municipality in 2015. This pressure is calculated by the percentage of building opportunities necessary to fill in the housing needs for the period 2015-2030. An overall pattern of oversupply is visible with even municipalities which will shrink in the future. Nontheless, there are a few municipalities -mostly larger cities- that will know a shortage of supply. Most prominent are the major cities of Antwerp, Ghent and the fringe of the Brussels Capital Region.

However, when we look at the same phenomenon on the scale of a housing market area, than only the coastal area will face a shortage (Fig. 6). As for the city of Antwerp again, there may be a shortage in the city centre but there is an oversupply in the fringes, leveling out the shortage. The same occurs in the housing market of Ghent.

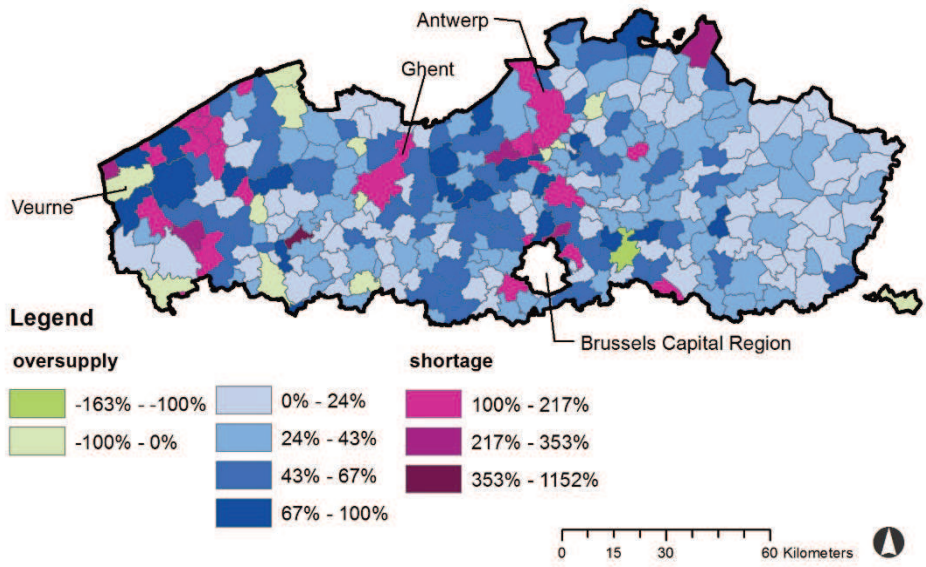

Fig. 5: Percentage of building opportunities necessary to fill in the housing needs in the period 2015-2030. Source: Population forecasts: Processed data from the Flemish Government – Research Centre Flanders (2015); building supply: Processed data from the Flemish Government - Environment Department.

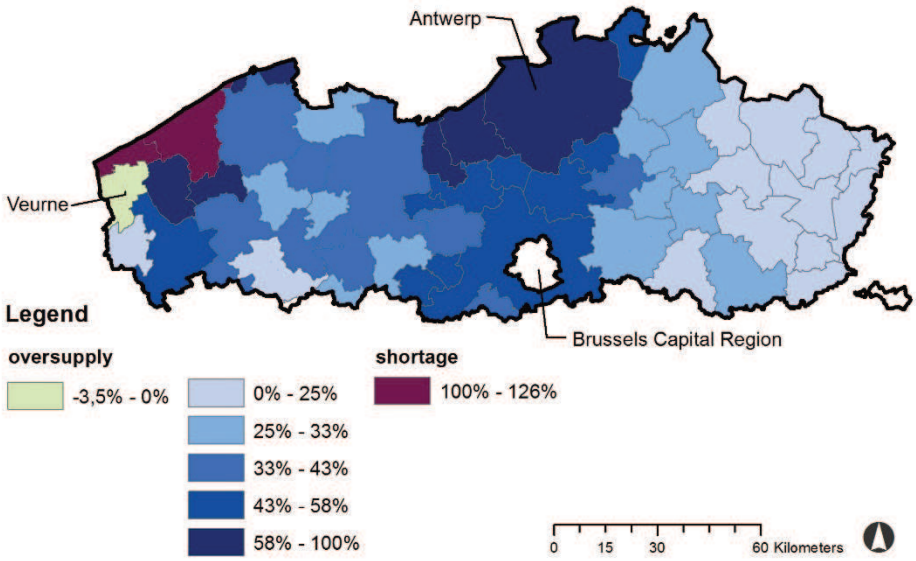

Fig. 6: Percentage of building opportunities necessary to fill in the housing needs in the period 2015-2030. Source: Population forecasts: Processed data from the Flemish Government – Research Centre Flanders (2015); building supply: Processed data from the Flemish Government - Environment Department.

6 CONCLUSION

In Flanders, there are still 41,000ha of building plots, representing 570,000 building opportunities, anchored in the existing Spatial Structure Plan of Flanders. Approximately half of these are situated in urban areas and half in rural areas. As stated earlier, housing needs will be about 230,000 units for the next 15 years (2015-2030). These building opportunities are calculated based on densities of 15 units per hectare in rural areas and 25 units per hectare in urban areas. Altough these densities are relative low compared to other countries, there is still more than dubble of the amount on building opportunities than the need for it. There can be differences on the local level. But still, this oversupply on buiding plots steers suburbanisation in Flanders.

For the moment, the public sector in Flanders is developing new policy plans to deal with the ungoing urban sprawl. In her White Paper of the Policy Plan(Ruimte Vlaanderen, 2017), Flanders states two major objectives that are of direct importance to counter sprawl. First, spatial development is restricted to the existing builtfabric. That means that the foremensioned 41,000 hectare of building plots can't be build upon. Of course in practice, land can be switched so naturally valuable areas can be saved and better located areas, e.g. near towns, can be developed. This is a strategy of spatial efficiency. It comes preferebly with the

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deletion of badly located areas of the oversupply on land. The only solution in this context is to shift the supply in the rural areas toward the urban areas. The fact that the majority of the buiding plots are in hand of individuals makes this future policy action all the more difficult. So a renewed vision on the urban structure of Flanders is needed to counter ongoing spawl.

Second, the plan states what 'better located areas' mean. The goal is to develop further the surrounding of railway stations or other nodes of public transport. This is the strategy of transit oriented development. Densification, reuse, interweaving are means to achieve this strategy. Local and regional spatial strategies have to be implemented by the public sector. The conceptualization and measurement of demand, supply and market equilibrium have had important impacts in the formulation of housing policies at both the national and local levels (Muth & Goodman, 1989).

However, the issue of sprawl can not only be tackled by public authorities. In particular, sprawl is an issue where the private citizen is particularly active and must thus be involved in order to come to efficient solutions. Property prices and personal housing preferences (detached housing with gardens in rural areas) still drive sprawl in Flanders.

The private economic sector (developers, real estate managers, …) has also an important role to play, and organisations of the third sector (e.g. environmental associations) are often involved (Territorial Cohesion and Urban Matters Workgroup, 2010). Specific subsidies and taxes can steer the location of real estate; a territorial policy is needed to differentiate spatial policy between rural and urban areas.

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ISBN 978-3-9504173-2-6 (CD), 978-3-9504173-3-3 (print)
Editors: Manfred SCHRENK, Vasily V. POPOVICH, Peter ZEILE, Pietro ELISEI, Clemens BEYER